

WE CLAIM AS OUR INVENTION:

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a' 1. A pinless composite masonry block comprising a
front surface and a back surface adjoined by first and
second side surfaces, a top surface and a bottom surface
5 each lying adjacent said front, back, and first and second
side surfaces,

each of said side surfaces having an inset
spanning from said block top surface to said block
bottom surface,

10 said block top surface comprising one or more
protrusions, of said protrusions positioned adjacent
said first and second inset on said block top surface,

said block back surface comprising first and
second legs, said first leg extending from the wall
15 back surface beyond the plane of said block first side
surface and said second leg extending from the wall
back surface beyond the plane of said block second side
surface.

2. The block of claim 1 wherein said block has an open
20 central portion extending from said top surface to said
bottom surface.

3. The block of claim 1 wherein said block front
surface is substantially planar.

4. The block of claim 1 wherein said block front
25 surface is faceted.

5. The block of claim 1 wherein said block front surface is outwardly curving.

9m/ a2 6. ~~The block of claim 1 wherein said block upper surface comprises two protrusions shaped to seat within the 5 insets of adjacently positioned similarly configured blocks.~~

7. The block of claim 6 wherein said protrusions are positioned adjacent said block insets.

8. ~~The block of claim 6 said insets are angled to 10 provide a block which when stacked with said protrusions directed downwardly provides a set back wall and with said protrusions directed upwardly provides a substantially vertical wall.~~

9m/ a3 9. ~~The block of claim 8 wherein said insets extend 15 from about 1 inch to 4 inches into the center portion of the block.~~

10. A retaining wall structure, said retaining wall structure comprising one or more courses, each of said courses comprising one or more composite masonry blocks, 20 each of said composite masonry blocks comprising a front surface and a back surface adjoined by first and second side surfaces, a top surface and a bottom surface each lying adjacent said front, back and first and second side surfaces,

each of said side surfaces having an inset spanning from said block top surface to said block bottom surface,

5 said block top surface comprising one or more protrusions, each of said protrusions positioned adjacent said first and second inset on said block top surface,

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 said block back surface comprising first and second legs, said first legs extending from the wall back surface beyond the plane of said block first side surface and said second leg extending from the wall back surface beyond the plane of said block second side surface.

15 11. The retaining structure of claim 10 wherein said structure comprises at least two courses wherein the blocks of said upper course comprise insets which are seated on the protrusions of the block of said lower course.

12.¹⁶ ~~The structure of claim 11~~¹⁵ wherein said retaining structure comprises a supporting matrix positioned between adjacent blocks of said upper and lower courses.

13.¹⁷ ~~The structure of claim 12~~¹⁶ wherein said supporting matrix comprises tie backs positioned between the blocks of said upper and lower courses.

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14. The structure of claim 13 wherein said supporting matrix comprises a continuous webbing positioned between the blocks of said upper and lower courses.

15. The structure of claim 10 wherein said wall is substantially vertical.

16. The structure of claim 10 wherein said wall sets back at angle in relationship to the ground.

17. ~~A block mold assembly comprising:~~

(a) a stripper shoe, said stripper shoe having a top side and a bottom side, said shoe bottom side having one or more depressions, said shoe top side comprising one or more heating element positioned over said shoe bottom side depressions; and

(b) a block mold having a central opening and shaped to receive said stripper shoe, said mold having a front, back, and first and second sides.

18. The mold assembly of claim 17, comprising a heat shroud affixed to said shoe, said heat shroud configured to contain said heating element.

19. The mold assembly of claim 18, comprising a head affixed to said heat shroud.

20. The mold assembly of claim 17, wherein said mold first and second sides have a length and a width and each comprise protrusions, said protrusions spanning the width of said first and second sides, each of said protrusions narrowing across their span.

21. The mold assembly of claim 20, wherein said mold comprises a core positioned within said mold central opening.

22. The mold assembly of claim 21, wherein said
5 stripper shoe comprises a first section and a second section, said mold first section having two depressions in said shoe bottom side, said depressions aligned parallel to said mold front, said shoe further comprising first and second heating elements each positioned on said shoe top
10 side over said shoe depressions, said shoe first and second sections shaped to be received in said mold.

23. A method of using a block mold assembly, said block mold assembly comprising:

(a) a stripper shoe, said stripper shoe having a
15 top side and a bottom side, said shoe bottom side having one or more depressions, said shoe top side comprising one or more heating element positioned over said shoe bottom side depressions; and

(b) a block mold having a central opening and
20 shaped to receive said stripper shoe, said mold having a front, back, and first and second sides, said method comprising the steps of:

(i) loading said mold with block mix;
(ii) compressing the block mix with said
25 shoe; and

(iii) stripping the block from the mold with
said shoe.

24. ~~A block resulting from the method of claim 26.~~

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